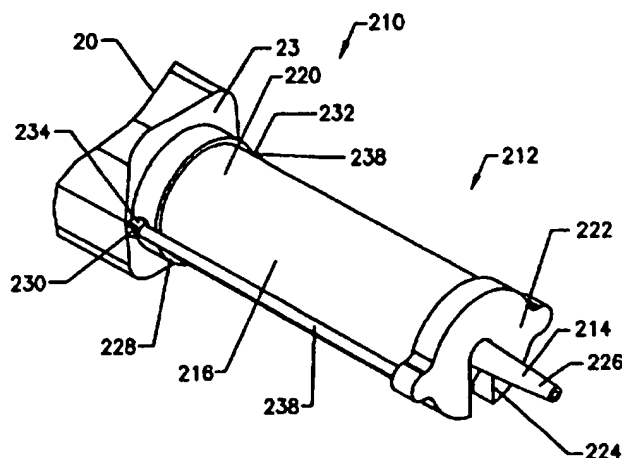


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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(74) Agents: STUBENVOLL, Gretchen, Platt; Medrad, Inc., One Medrad Drive, Indianola, PA 15051 (US) et al.			<b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
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(54) Title: FRONT LOAD PRESSURE JACKET SYSTEM WITH SYRINGE HOLDER



## (57) Abstract

A pressure jacket system of the invention is used to permit the front loading and removal of a syringe (214) from an injector (20), and includes a jacket cylinder (216) having an open front end (218) for receiving a syringe (214) and a rear end coupled to the injector front face (23), first and second tie rods (238, 240) having rear ends pivotally attached to the injector front face (23) by pivots and bushings (230, 234, 232, 236), and a front retaining plate (222) attached to the front ends of the first and second tie rods (238, 240), such that the retaining plate (222) and tie rods (238, 240) are pivotable between a closed position for holding the syringe (214) within the jacket cylinder (216) and an open position to allow the insertion and removal of the syringe (214) from the jacket cylinder (216).

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 96/13324

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 6 A61M5/145 B05C17/01

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 6 A61M A61C B05C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 964 139 A (KLEINMANN ET AL.) 22 June 1976 see column 2, line 6 - column 3, line 53 see figures 1-5 ---	1,4
X	US 5 078 698 A (STIEHL ET AL.) 7 January 1992 see column 3, line 7 - column 4, line 40 see column 5, line 21 - line 39 see figure 1 ---	5-7,9, 10,49
Y	US 4 723 948 A (CLARK ET AL.) 9 February 1988 see column 5, line 48 - column 6, line 59 see figures 1,2 --- -/--	5-15,50

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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Date of mailing of the international search report

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# INTERNATIONAL SEARCH REPORT

Int. onal Application No  
PCT/US 96/13324

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 336 189 A (SEALFON) 9 August 1994 see column 3, line 19 - line 57 see figures 1,4	5-15,50
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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 96/ 13324

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Subject No.1: Claims 1-4,5-10,11-15,49 and 50  
Subject No.2: Claims 16-23,24-31,32-37,38-44, and 51  
Subject No.3: Claims 45-48

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:  
  
Subject No.1: Claims 1-4,5-10,11-15,49 and 50  
Subject No.2: Claims 16-23,24-31,32-37,38-44, and 51
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 96/13324

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